The influence of social capital on health issues among transgender and gender diverse people: a rapid review

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Abstract

This article aims to analyze the current literature on the social capital of transgender and gender diverse(TGD) people, given their fragility in social and health terms. The paper followed the guidelines developed by Tricco, Langlois, and Straus. The results of this paper reveal significant gaps in the literature relating to the social capital of TGD people and highlight how the various types of shared capital are for sexual health to be considered in future research on transgender health. This is the first article that analyzes in detail the relationship between social capital and TGD individuals. To date, there is no other scientific evidence in the literature in this regard. The paucity of scholarly evidence available for paper limits our ability to make conclusive statements about social capital of TGD people. Small sample sizes in the included studies warrant caution when deriving generalized conclusions about social capital.

Keywords: social capital, transgender and gender diverse people, health, review

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1. Introduction

Research on the health of sexual and gender minorities (SGM), and in particular on transgender and gender diverse(TGD) individual, is very recently established (LeBlanc and Perry, 2021). This trend has established the following social, political, media, and legal activities on the rights and protection of LGBTQA+.

However, before continuing, is it good to ask who is TGD individual? To date, there are several definitions, in general, for this work, and I used the definition proposed by the World Professional Association of Transgender Health (WPATH): "transgender and gender diverse (TGD) to be as broad and comprehensive as possible in describing members of the many varied communities globally of people with gender identities or expressions that differ from the gender socially attributed to the sex assigned to them at birth. This includes people who have culturally specific and/or language-specific experiences, identities, or expressions, and/or that are not based on or encompassed by Western conceptualizations of gender, or the language used to describe it" (Coleman et al. 2022, p.3). The first research on the health of TGD people and other SGM began in the 1950s, in a cultural context that considered this gender variability as real crimes against nature and disease (Henry, 1948; Hirschfeld, 1948). Thus, SGM become the exclusive object of medicine.

In the 1970s, on the other hand, the process of demedicalization began thanks also to the activism that stood out in those years, although the research on health of TGD people still remained poor (LeBlanc and Perry, 2021). In the 1980s, on the other hand, the interest in research on the health of SGM health grew rapidly due to the spread of the HIV / AIDS epidemic. In those same years, a small number of researchers began to show interest in the relationship between TGD health and their social system of reference made up mainly of harassment and stigmatization (Hunter and Schaecher, 1987; Martin, 1982; Ross-Reynolds and Hardy, 1985). From these pioneering studies onwards, it has been documented, albeit with a residual number, that the TGD population is lacking in social relations, due to the stigma and nonacceptance of collectivities, and this is an incisive factor in their fragile health state. Regarding the fragility of health of TGD people, it is recalled that, compared to the cisgender population, they have a greater predisposition to different types of pathologies such as: suicidality (Cochran, Sullivan, and Mays, 2003; King et al., 2008), substance use disorders (King et al., 2008), obesity (Boehmer, Bowen, and Bauer, 2007), hypertension (Fredriksen-Goldsen, Kim, Barkan, Muraco, & Hoy-Ellis, 2013), cardiovascular disease (Fredriksen-Goldsen et al., 2013), Type II diabetes (Beach, Elasy, and Gonzales, 2018), chronic pain (Fredriksen Goldsen et al., 2017), cancer (Stinchcombe, Wilson, Kortes-Miller, Chambers, & Weaver, 2018), acquired hypothyroidism, COPD, PTSD, schizophrenia, diabetes, asthma, obesity, personality disorders,

rheumatoid arthritis/ osteoarthritis, psychotic disorders, fibromyalgia, chronic pain and fatigue, anemia, tobacco use disorders, hyperlipidemia, anxiety disorders, major depressive affective disorders(Hardacker et al., 2018). Therefore, all of these diseases are also caused by the "loss of support networks, isolating the individual from their chosen family, the family of origin, colleagues, friends, and health system supports" (Hardacker et al., 2018,p.100). Thus, if "Social relationships matter for health and well-being" (LeBlanc and Perry, 2021, p. 136), experiences of stigma,discrimination, and isolation negatively affect the quality of life of TGD people (Petruzzella, Feinstein and Lavner, 2019).

Although much research has shown how large and toothless social networks are able to improve access to different types of social resources and mediate better psychophysical health (Kim, Fredriksen- Goldsen, Bryan and Muraco, 2017), in the case of TGD people there is very little literature on this subject. It is important to remember that there is another way to define social relations and their relevance to health, namely, the so-called concept of social capital (Coleman 1988, Putman, Leonardi and Nanetti, 1993).

The notion of social capital arises in the sociological, political, and economic fields, to provide explanations for the cobehavior of cooperating citizens in society (Kawachi e Kennedy, 1997), but for some time "Public health researchers have turned to the concept of social capital to explain the heterogeneity of the population state of health in all geographical areas" (Lochner et al.,1999, p.259). In general, social capital could be defined as the set of some characteristics of social life such as: social networks, norms, and trust that allow us to achieve common goals (Putnam 2000). According to the review of the literature on social capital proposed by Aldrige et al. (2002), it is possible to distinguish a real taxonomy of social capital:bonding social capital is the type of social capital that refers to parental and ethnic ties, i.e., strong ties (Banfield 1958, Gittel and Vidal, 1998); bridging social capital, these are the weakest social ties, and therefore attributable to relationships with acquaintances and friends (Granovetter, 1973, 1985) and linking social capital: concerning the connections between individuals belonging to different social levels (Woolcock, 2001).

Moreover, another theorist of social capital, Pierre Bourdieu (1977,1986), argues that it is a set of resources of a societal type, and therefore reflects the set of social inequalities that actually structure it (Bourdieu 1986). Thus, according to this approach, central is the power behind social capital, which varies according to the stability and location of social relations. Social capital turns out to be important for health in general, with a sociological approach.

Already many centuries ago, Emile Durkheim had shown how integration and social cohesion had relevance in pathologies in psychiatric disorders such as suicide (Durkheim, 1897).

Therefore, based on what has been reported so far, this review was guided by the following question research: how has the social capital of TGD people been studied in the literature? More specifically, this article aims to analyze the current literature on the social capital of TGD people, given their fragility in social and health terms.

2. Methods

A rapid review was conducted to produce a timely, contextualized, and in-depth synthesis of the current literature on the social capital of TGD. The review followed the guidelines developed by Tricco, Langlois, and Straus (2017).

The search was conducted in April-May 2022 and was performed in three databases: MEDLINE, Scopus and Web of Science. This study focuses on the keyword "social capital and transgender and gender divers people" and the research was realized with the use of two rows of this filter: article title, abstract, keywords.

Qualitative and quantitative studies, published without time limits, were included. To include the various studies, they must have studied directly, both with quantitative, qualitative, or mixed methods and in a direct way on a semantic and empirical level, the concept of social capital on TGD people regardless of gender or age.

To represent the population of interest, inclusion criteria were to all types of subjects that fit the definition of TGD (including nonbinary) and of all ages. Studies were excluded, however, whether the concept of social capital was or was only briefly hinted at or explored but without technical terminology; and those studies whose results were presented in an unclear and dispersive way with respect to the initial objectives were also excluded; besides excluded articles not dealing with TGD people.

I started with 199 studies, 4 duplicate studies were removed, and the remaining 195 studies were screened for relevance by me at the title and abstract level. Upon reviewing titles and abstracts, 103 studies were excluded because they did not meet the inclusion criteria (e.g., wrong population, setting, methods, or research question). 92 studies were subsequently screened at the full-text level by three reviewers and a final sample of 9 articles was included (Figure 1) and charted for data extraction.

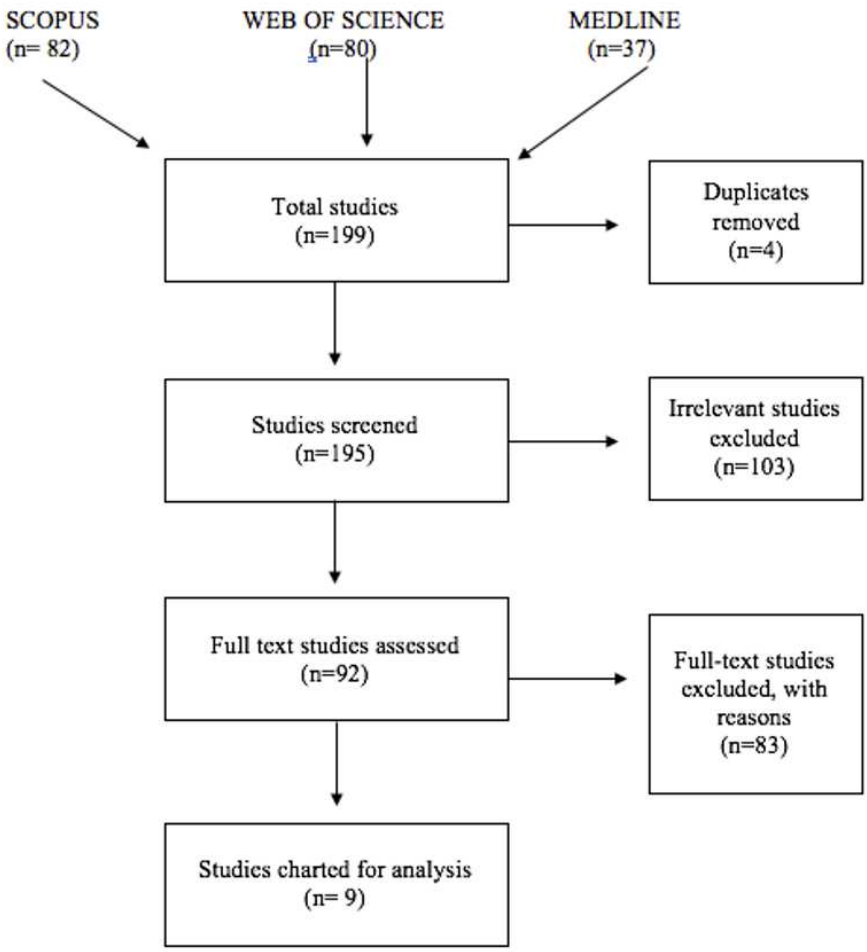

Figure 1. Flowchart outlining stager of the rapid review process and number of sources retrived and selected at cach stage.

The data extraction chart contained fields for reference information, region where the study occurred, purpose, methods, samples, and results relating to the social capital of TGD people.

3. Findings

The nine included studies were published between 2008 and 2022. Included studies are summarised in Table 1.

Author(s)	Years	Main Purpose	Age	Study design	Methods	Contest of research	Country/City
1. Rogério M. Pinto, Rita M. Melendez & Anya Y. Spector	2008	To describe how a sample of urban racial and ethnic minority MTFs use their gendered social networks to develop social capital and engage in political action.	From 18 to 53	Qualitative	Interview	Community-based health care clinic	USA-New York
2. Sara Green-Hamann & John C. Sherblom.	2014	To compare and analyze differences in the social capital and support communication provided by Alcoholics Anonymous,cancer caregivers, and transgender identity support groups.	Not reported	Quantitatie	Comparative analysis	Second Life (virtual world)	USA
3. Elena A. Erosheva, Hyun-Jun Kim. Charles Emlet, and Karen I. Fredriksen-Goldsen.	2015	This study examines global social networks—including friendship, support, and acquaintance networks—of lesbian, gay, bisexual, and transgender (LGBT) older adults.	From 50 to 80+	Quantitatie	Survey	Community agencies	USA
4. Andrew King and Ann Cronin	2015	The purpose of this paper is to contribute to debates about lesbian, gay, bisexual and transgender (LGBT) housing later in life by placing these in a theoretical context: social capital theory.	Older people	Review	Narrative review	Scientific literature	USA
5. Amaya G. Perez-Brumer, Sari L. Reisner, Sarah A. McLean,	2017	To understand social capital as a social determinant of health and examines its relationship to HIV vulnerabilities	From 18 to 44	Qualitative	Focus group	Community Task Force	USA-Lima

Alfonso Silva-Santisteban, Leyla Huerta, Kenneth H. Mayer, Jorge Sanchez, Jesse L. Clark Matthew J. Mimiaga, and Javier R. Lama.		among TW in Peru.					
6. Sel J. Hwahnga,Bennett Allenc , Cathy Zadoretzkyd, Hannah Barber Doucete , Courtney McKnightf and Don Des Jarlaisf	2021	To analyzed social capital and health outcomes among transwomen of color	From 23 to 50	Qualitative	Focus group	AIDS Institute of New York State Department	USA-New York
7. Rayner Kay Jin Tan, Caitlin Alsandria O'Hara, Wee Ling Koh, Daniel Le, Avin Tan, Adrian Tyler Calvin Tan, Chronos Kwok, Sumita Banerjee and Mee Lian Wong.	2021	This paper attempts to explore the association between measures of social capital and patterns of sexualized substance use among a sample of YMSM in Singapore	form 18 to 25	Quantitative	Prospective cohort study	Community organizations	China-Singapore
8. Meagan Zarwell, Jennifer L. Walsh, Katherine G. Quinn, Andréa Kaniuka, Alexandra Patton, William T. Robinson and Robert J. Cramer.	2021	The aim of this paper is to create a new tool to measure social capital within social networks of sexual minority men and gender minority individuals.	From 18 to older	Quantitative	Survey	Pride Festival in Milwaukee	USA-Milwaukee
9. Yuekang Li, Vanessa D. Fabbre & Eleni Gaveras	2022	This study uses the autobiographical life narratives of trans older adults	from 50 to over 80	Qualitative	Biographical interview	Personal and professional networks of the co-	USA

		to develop the concept of authenticated social capital, which can be used to diversify theorising about both trans older adults and the lives of other stigmatised and marginalised groups in an increasingly diverse 21st-century global society.				creators.	

Manual full-text review revealed that studies occurred across the USA(n=8) and only one in China(Singapore). Five studies focused on SGM, including and not just TGD people(Hamann and Sherblom, 2014; King and Cronin, 2015; Erosheva, Emlet, and Fredriksen-Goldsen., 2015; Zarwell et al. 2021; Tan et al. 2021). Four studies focused only transgender people (Pinto, Melendez and Anya, 2008; Perez-Brumer et al.,2017; Hwahnga et al., 2021; Li, Fabbre and Gaveras, 2022).

Only one study is a narrative review(King and Cronin, 2015). Regarding the age of the subjects included in the analyzed papers, 4 studies focused on an elderly population (Erosheva, Emlet, and Fredriksen-Goldsen., 2015; King and Cronin, 2015; Zarwell et al. 2021; Fabbre and Gaveras, 2022); on the other hand, in four studies the population was made up of young people and adults (Pinto, Melendez and Anya, 2008; Perez-Brumer et al.,2017; Hwahnga et al., 2021; Tan et al. 2021).

Regarding the research contexts, and therefore the area of recruitment, as can be seen in the table, most of the studies were conducted through the involvement of associations and / or healthcare contexts.

Definitions of social capital used in the articles

First of all, in the nine papers included, different types of definitions of social capital were identified and reported in the following Table 2.

Author(s)	**Definition of social capital used**
Rogério M. Pinto, Rita M. Melendez & Anya Y. Spector	"Social capital refers to sharing information and social values in networks that promote survival and access to resources (Bourdieu, 1986; Coleman, 1988)".
Sara Green-Hamann & John C. Sherblom.	"The concepts of social capital are used to describe the social support provided in groups, but little research connects that communication to the stressor for which the group is formed".
Elena A. Erosheva, Hyun-Jun Kim. Charles Emlet, and Karen I. Fredriksen-Goldsen.	"The concept of social capital involves a notion of social relations as an available resource. Social capital can be defined as a function of social structure—a system of social relations—producing advantage for individuals

	who are within that structure (Coleman, 1988). Social ties—with kin, partners, adult children, friends, neighbors, or with fellow members of organizations—constitute social capital of older adults that can give them access to social, emotional, and practical support (Gray, 2009)".
Andrew King and Ann Cronin	The authors used the classical definitions by Putnam and Bourdieu.
Amaya G. Perez-Brumer, Sari L. Reisner, Sarah A. McLean, Alfonso Silva-Santisteban, Leyla Huerta, Kenneth H. Mayer, Jorge Sanchez, Jesse L. Clark Matthew J. Mimiaga, and Javier R. Lama.	"Bonding social capital (, bridging social capital (inter-group relations) and linking social capital (relations with institutions of power) are needed to inform public health strategies".
Sel J. Hwahnga,Bennett Allenc , Cathy Zadoretzkyd, Hannah Barber Doucete , Courtney McKnightf and Don Des Jarlaisf	"Social capital as a group-level construct, versus an individual-level resource, in which social support is an important component. Social capital can further be defined as the social resources that evolve through social networks or structures characterized by mutual trust".
Rayner Kay Jin Tan, Caitlin Alsandria O'Hara, Wee Ling Koh, Daniel Le, Avin Tan, Adrian Tyler Calvin Tan, Chronos Kwok, Sumita Banerjee and Mee Lian Wong.	Social capital is a concept "that reflect access to social networks, psychological feelings of affiliation, or even explicit forms of affiliation that presuppose participation in interest groups or activities".
Meagan Zarwell, Jennifer L. Walsh, Katherine G. Quinn, Andréa Kaniuka, Alexandra Patton, William T. Robinson and Robert J. Cramer.	"The theory of social capital argues that social connections and networks are valuable to members of groups who may derive resources from within their networks".
Yuekang Li, Vanessa D. Fabbre & Eleni Gaveras	The concept of social capital is used "to explore the nature, role and value of social networks, connections and forms of community in the lives of older adults, and its importance for wellbeing in later life has received increased attention in social science and policy domains".

It is possible to note that in most of the studies, the definitions and conceptualizations of Coleman(Pinto, Melendez and Anya, 2008; King and Cronin, 2015;), Bourdieu (Pinto, Melendez and Anya, 2008; King and Cronin, 2015; Zarwell et al. 2021; Li, Fabbre and Gaveras, 2022) and Putnam(King and Cronin, 2015; Zarwell et al. 2021; Tan et al. 2021; Hwahnga et al., 2021; Li, Fabbre and Gaveras, 2022) have been used, even if in many cases reinterpreted by the authors; being the highest theoretical references available in the literature to date.

Definitions and authors other than those mentioned can be found, for example, in the work by Hamann and Sherblom(2014)that they used two different authors for the definition of social capital by Lin(1999) that "Social capital is embedded in the social network of a group.

By participating in the group's social network, an individual gains access to certain informational and emotional resources that are helpful in responding to life's stresses. These resources provide a type of social capital.Support groups offer individuals social capital resources to help respond to their life stressors" (Hamann and Sherblom, 2014, p.1132); the second definition used by Hamann and Sherblom(2014) is that of Granovetter that "Strong-tie networks of close friends offer a bonding social capital"(Hamann and Sherblom, 2014, p.1133). Perez-Brumer et al. (2017) used the notion proposed

by Woolcock (2004), which in fact originated from the re-elaboration of the above-mentioned "fathers" of the concept of social capital.

Regarding definitions, the most recent article by Li, Fabbre and Gaveras(2022), included in this article, contains two different definitions, one little known and the other entirely created by the authors. In the first case, for the authors, the best-known theories on social capital do not take into account the cultural and social systems inherent to gender issues, especially with respect to the distribution of power in society; this is why these researchers used Anselm Strauss's (1978)approach according to which trans genders experience "non-authentication" experiences.

In the second case, Li, Fabbre and Gaveras(2022) proposed a new type of social capital specific for the TGD social capital analysis, the “authenticated social capital”. This type of social capital is that blends the main theoretical elements of social capital with the aim, however, of overcoming the classic vision of this concept which “often relies on cisheteronormative norms and expectations, while authenticated social capital aims to resist these” (p.13).

The main methods used to study the social capital of TGD people

In the eight included articles, except the narrative review by King and Cronin (2015), it was possible to detect a certain variability of research methods and techniques used for the study of social capital of TGD people.

In table 3 provides a general overview of the search tools used in the articles included.

Author(s)	Study design	Method and instrument used
Rogério M. Pinto, Rita M. Melendez & Anya Y. Spector	Qualitative	Community-based participatory research. The instrument use was semistructured interview according the approach by "Lincoln and Guba (1985)"based on grounded theory
Sara Green-Hamann & John C. Sherblom.	Quantitative	Comparative analysis of optimal matching and social capital influences. The theoretical approach used was optimal matching model.
Elena A. Erosheva, Hyun-Jun Kim, Charles Emlet, and Karen I. Fredriksen-Goldsen.	Quantitative	Survey. The social network measurement are typically used in social network studies (Burt, 1984); also it was used and modified the index to estimate the network size of LGBT individuals; the diversity index was used to study Network diversity; while to measure Family relations, identity disclosure, religious activity, and service utilization, scales built by the authors were used.
Amaya G. Perez-Brumer, Sari L. Reisner, Sarah A. McLean, Alfonso Silva-Santisteban, Leyla Huerta, Kenneth H. Mayer, Jorge Sanchez, Jesse L. Clark Matthew J. Mimiaga, and Javier R. Lama.	Qualitative	Focus group events. The authors used the community-level perspective. For qualitative analysis was conducted using Dedoose.

Sel J Hwahnga,Bennett Allenc,Cathy Zadoretzkyd, Hannah Barber Doucete, Courtney McKnightf and Don Des Jarlaisf	Qualitative	Focus groups events. The authors used the thick and thin trust approach. For the analysis was used thematic approach to analyzing the data (Guest et al., 2012).
Rayner Kay Jin Tan, Caitlin Alsandria O'Hara, Wee Ling Koh, Daniel Le, Avin Tan, Adrian Tyler Calvin Tan, Chronos Kwok, Sumita Banerjee and Mee Lian Wong.	Quantitative	Prospective cohort study. To study was used Personal social capital(PSCS-16); to describe the perceived quantity and quality of their relationships with individuals and organizations, it is used a Likert scale. Connectedness to the LGBT community was an eightitem scale adapted from Frost and Meyer. Outness was measured t with the scale developed by Mohr and Fassinger
Meagan Zarwell, Jennifer L. Walsh, Katherine G. Quinn, Andréa Kaniuka, Alexandra Patton, William T. Robinson and Robert J. Cramer.	Quantitative	Crosssectional survey. For the study, the authors have modified an instrument that measured social capital within constructed families of GBMSM, the Constructed Family Social Capital Scale by Zarwell and Robinson.
Yuekang Li, Vanessa D. Fabbre & Eleni Gaveras	Qualitative	Interpretive content analysis. The instrument used was in-depth interview. The authors used: interpretive content analysis (Drisko and Maschi 2016),; twocircle coding process. Compared to content analysis techniques that rely solely ondeductive coding and quantitative measures (Baxter 1991), interpretive content analysis facilitates additional attention to meaning-making and subjectivity in qualitative data (Drisko and Maschi 2016).

First of all, it is possible to note that there is a parity of qualitative and quantitative study designs. About this: four studies used a qualitative design study (Pinto, Melendez and Anya, 2008; Perez-Brumer et al.,2017; Hwahnga et al., 2021; Li, Fabbre and Gaveras, 2022); four studies used a quantitative study design(Hamann and Sherblom, 2014; Erosheva, Emlet, and Fredriksen-Goldsen., 2015; Tan et al. 2021; Zarwell et al. 2021).

Qualitative approaches were based on the use of instruments such as: focus group (Perez-Brumer et al.,2017; Hwahnga et al., 2021); interview (Pinto, Melendez and Anya, 2008; Li, Fabbre and Gaveras, 2022).

Quantitative approaches were based on questionnaires. From the analysis of these articles with quantitative approaches, two studies (Erosheva, Emlet, and Fredriksen-Goldsen. 2015; Tan et al., 2021; Zarwell et al. 2021) interesting data have been revealed, united by the fact that some instruments, or parts of them, have been modified to specifically study the social capital of SGM. Erosheva, Emlet, and Fredriksen-Goldsen (2015) for the analysis of an

aspect of social capital, that is, the social network size, they have modificated the index to evaluate the dimensions of LGBTQA+ people.

In fact, the index they have modified is similar to that used to analyze the size of social networks, i.e., according to the sum method (McCarty, Killworth, Bernard, Johnsen and Shelley, 2001). It is an indicator that is based on the amount of social contact (with friends, relatives, etc.).

"The modified summation index uses groups defined by sexual identity, gender identity, and age because these groups reflect the basic composition of the population of interest better than typical relational categories. It has been shown that the summation method yields a valid and reliable proxy for the actual network size" (Erosheva, Emlet, and Fredriksen-Goldsen, 2015, p.8).

Zarwell et al., 2021, have modificated the Constructed Family Social Capital Scale by Zarwell and Robinson (2018), an instrument that merges social cohesion and the indicators used to study social networks, to measure the social capital of SGM, which belongs to built families.

Zarwell et al. (2021), with their modifications, they created the Network Social Capital Stairs, that which contains the same questions as the previous scale, with some modifications on questions relating to individuals who are part of the social networks of the study subjects, instead of concentrating alone on the family as in the starting scale.

Thus "this additional measure of compositional quality was added because SGMS face unique barriers to health care and discrimination in health care settings due to their marginalized identity and therefore may benefit from social network members who they can talk to about LGBTQA+ related healthcare"(Zarwell et al., 2021,p. 4).

Types of social capital studied

Regarding the types of social capital of the TGD people that have been analyzed in the articles included are synthesized in Table 4.

Author(s)	Bonding capital	Bridging capital	Linking capital	Trust
Rogério M. Pinto, Rita M. Melendez & Anya Y. Spector	**X**			
Sara Green-Hamann & John C. Sherblom.	**X**	**X**		**X**
Elena A. Erosheva, Hyun-Jun Kim. Charles Emlet, and Karen I. Fredriksen-Goldsen.		**X**		
Andrew King and Ann Cronin	**X**	**X**		**X**
Amaya G. Perez-Brumer, Sari L. Reisner, Sarah A. McLean, Alfonso	**X**	**X**	**X**	**X**

Silva-Santisteban, Leyla Huerta, Kenneth H. Mayer, Jorge Sanchez, Jesse L. Clark Matthew J. Mimiaga, and Javier R. Lama.				
Sel J. Hwahnga,Bennett Allenc , Cathy Zadoretzkyd, Hannah Barber Doucete , Courtney McKnightf and Don Des Jarlaisf	**X**	**X**	**X**	**X**
Rayner Kay Jin Tan, Caitlin Alsandria O'Hara, Wee Ling Koh, Daniel Le, Avin Tan, Adrian Tyler Calvin Tan, Chronos Kwok, Sumita Banerjee and Mee Lian Wong.	**X**	**X**		**X**
Meagan Zarwell, Jennifer L. Walsh, Katherine G. Quinn, Andréa Kaniuka, Alexandra Patton, William T. Robinson and Robert J. Cramer.	**X**			**X**
Yuekang Li, Vanessa D. Fabbre & Eleni Gaveras	**X**	**X**		**X**

It is possible to see how bonding capital has been studied in all articles included (Pinto, Melendez and Anya, 2008; Hamann and Sherblom, 2014; Erosheva, Emlet, and Fredriksen-Goldsen, 2015; King and Cronin 2015, Perez-Brumer et al.,2017; Hwahnga et al., 2021; Tan et al. 2021; Zarwell et al., 2021; Li,Fabbre and Gaveras, 2022).

Bridging capital was studied in 8 articles on 9(Hamann and Sherblom, 2014; Erosheva, Emlet, and Fredriksen-Goldsen, 2015; Perez-Brumer et al.,2017; Hwahnga et al., 2021; Tan et al. 2021; Zarwell et al., 2021; ; Li,Fabbre and Gaveras, 2022).

Linking capital was studied in only two studies (Perez-Brumer et al.,2017; Hwahnga et al., 2021).

Trust was studied in 7 studies (Hamann and Sherblom, 2014; Perez-Brumer et al.,2017; Hwahnga et al., 2021; Tan et al. 2021; Zarwell et al., 2021; Li,Fabbre and Gaveras, 2022).

Three articles (Erosheva, Emlet, and Fredriksen-Goldsen, 2015; Tan et al., 2021; Hwahnga et al., 2021)found some subcategories of scapital. Erosheva, Emlet, and Fredriksen-Goldsen(2015) and Tan et al. (2021) proposed two subcategories of social capital: sociocentric network and egocentric networks.

The sociocentric (Erosheva, Emlet, and Fredriksen-Goldsen,2015) or group-centred(Tan et al. 2021) dimension concerns all relationships between people within a welldefined group such as a village and egocentric(Erosheva, Emlet, and Fredriksen-Goldsen, 2015) or individual-center(Tan et al. 2021) dimension regards the personal network.

Hwahnga et al. (2021), instead, proposed subcategories that relate to social trust(Putnam, 2000)"that were implicit within reciprocity, social norms, and civic engagement. Thick trust, as a component of bonding social capital, was thus "bolstered by dense networks of social exchange".

This trust, as a component of bridging or linking social capital, was directed at a "generalized " and depended on some level of social capital networks and expectations of reciprocity"(p.3).

Main findings about social capital of TGD

As regards the results achieved in all nine articles analyzed, first of all, they are fully in line with the general literature which considers social capital as a real health promoter (Pinto, Melendez and Anya, 2008; Hamann and Sherblom, 2014; Erosheva, Emlet, and Fredriksen-Goldsen, 2015; King and Cronin 2015;Perez-Brumer et al.,2017; Hwahnga et al., 2021; Tan et al. 2021; Zarwell et al., 2021; Li,Fabbre and Gaveras, 2022). King and Cronin (2015) regarding the importance of social capital, arguing that "Social capital counts" (p.22) for the health of SGM.

In detail, some results are particularly interesting. Pinto, Melendez and Anya (2008)found that the TGD people involved considered the clinic dedicated to their health treatment, as a real place for training and for the implementation of their social capital thanks to the various services provided by the clinic. Furthermore, the clinic also provided a further positive contribution to the social capital of the subjects studied, also thanks to the interaction with other TGD people, sharing advice, experiences, etc. on their path of building their identity (Pinto, Melendez and Anya, 2008).

In Hamann and Sherblom's (2014) study, however, it is clear that through the study of social capital, it is possible to understand how support groups, inherent to the problems of social inclusion and not only, of TGD people are promoters of social support in the growth of both bonding and bridging capital. Furthermore, and this is a very interesting data, according to Green, the TGD group is the most inclined to increase social capital because "The TI group communication builds group inclusion and social identity through the use of "we" statements, specialized language, and acronyms. Only in their expressions of emotional empathy and sympathy do the three groups look qualitatively similar in their support communication". A similar result, regarding this aspect related to Erosheva, Emlet, and Fredriksen-Goldsen's (2015) study, it is shown that TGD people have the largest composition of

social capital, greater predisposition towards network diversity, greater ties with other SGMS as: lesbian, gay men and bisexual. Perez-Brumer et al.(2017) paper, on the other hand, in the results, underlines the need to make social capital a real measure, and tool, to improve and prevent the different forms of social exclusion that trangenders experience, not only at the level relational, but above all at the level of health services, with the aim of implementing the degree of acceptance and resilience of these, and not only, SGM.

In this regard, Zarwell et al. (2021), with their new scale, the "Network Social Capital Scale", argued that not only does the new scale allow to improve the quality of measurement of social capital, but also to be able to demonstrate the unequivocally the salutary effect that social capital has not only on perceived health, but also on programming and management of health systems in the field of SGM.

The study of social capital by Tan et al. (2021) has allowed us to demonstrate how the low social capital of the SGM, dictated by nonacceptance, stigma, etc., causes, at an early age, the use of drugs, alcohol and above all early use of sex and various forms of prostitution.

The study by Hwahng et al. (2021) comes to register as the social capital, especially in the area of trust, in the dimension of "thick trust" (bond capital) and "thin trust" (bridge / connection capital) highly relevant to TGD people in their relationship with health and the health system.

Li,Fabbre and Gaveras (2022), with "their" new form of social capital, the "authenticated social capital", argued that this type of social capital is composed of different dimensions and levels, so much so that it poses itself as a new paradigm for analyzing the social capital of SGM.

In particular, these authors argued that with this new form of social capital it can favor empowerment, and thus simplify self-affirmation and promote the transmission of knowledge, which ultimately challenges the marginalized identities, thus giving greater importance to the alternative social networks created by transoriented communities.

Thus, the concept of social capital and community is defined on the basis of a sense of shared identity rather than on the basis of coordinates and / or physical and spatial proximity.

4. Discussion

This review identified the major issues related to social capital in health issues among TGD people. From the analysis of the included papers, four macro areas of analysis emerged from the point of view of the data collected: the types of definitions used, the methods and techniques of measurement, the size of the social capital analyzed and the main findings achieved.

As for the definitions used, as already reported, it is interesting to note that only in 2022, with the study of Li, Fabbre and Gaveras (2022) a new way of

defining and studying the social capital was developed, with their authenticated social capital. It is a reinterpretation and unification between the approach of Bourdieu and Putnam, by means of an author little known as Strauss (1978).

The results achieved, as reported in the previous paragraph, however, concern not only the TGD elderly, therefore it would be necessary to apply the concept of authenticated social capital also to other age groups, to effectively validate this new approach.

The relevant aspect, however, relates to the fact that, although there is a certain univocity and accessibility in the use of the notion of social capital in TGD people, there are very few studies in this regard.

This aspect requires significant reflection since social capital is being made up of social relations, these have a direct and indirect impact on health and inequality related to the status of SGM (LeBlanc and Perry, 2021).

This paper confirms the fact that research on SGM rarely focuses on the concept of social capital. Yet social exclusion and low social capital have a particularly negative impact on the health of individuals such as TGD people (Petruzzella, Feinstein and Lavner, 2019).

As far as the methodological approaches used are concerned, the fact that with the 8 original articles, there is a parity between qualitative (Pinto, Melendez and Anya, 2008; Perez-Brumer et al.,2017; Hwahnga et al., 2021; Li, Fabbre and Gaveras, 2022); and quantitative (Hamann and Sherblom, 2014; Erosheva, Emlet, and Fredriksen-Goldsen., 2015; Tan et al. 2021; Zarwell et al. 2021) approaches, is a significant step forward compared to what was the trend until some time ago(Schilt and Lagos, 2017) because before 2010, there were no quantitative data on TGD people, because all questionnaires used up to then only provided a binary view in the choice of gender (male and female) (Westbrook & Saperstein 2015).

Clearly, due to the scarcity of studies, it is certainly not possible to generalize. This aspect is important because, especially from a sociological point of view, the data on TGD people derives mainly from qualitative studies, due to the fact that qualitative approaches allow to grasp the phenomenological and lived aspects in a more in-depth way (Compton 2015, Rubin 2003).

It would be interesting to improve this aspect as well, to resort to approaches based on mixed methods(Pearce 2012) in such a way as to be able to integrate the qualitative aspects of the social capital of TGD people and the quantitative ones, which have not yet been applied in this field of research. Regarding the types of social capital studied, the studies in this article allow us to argue that bonding capital has been more studied.

Subsequently, bridging capital was analyzed in many of the articles (Hamann and Sherblom, 2014; Erosheva, Emlet, and Fredriksen-Goldsen,

2015; Perez-Brumer et al.,2017; Hwahnga et al., 2021; Tan et al. 2021; Zarwell et al., 2021; Li, Fabbre and Gaveras, 2022) included in this review.

In neither of the two types analyzed, a concept was taken into consideration that would be in an intermediate position between bonding and bridging capital, which for TGD people and in general for SGM, constitutes a fundamental component of their social capital (LeBlanc and Perry, 2021), i.e. the families of choice (Weston, 1997).

Families of choice for SGM, and in particular for TGD people, constitute a set of networks of broad and intimate relationships (Fish & Russell, 2018).

This type of "family", thus, is the result of the deconstruction of the concept of family from a biological and juridical point of view, which is the foundation of the social capital of the SGM, but which has not yet been analyzed with the profile of social capital (Thomeer, Donnelly, Reczek, and Umberson, 2017).

While the least studied type of social capital is linking; perhaps one or more in-depth studies would be necessary, also because one of the main problems inherent to the social capital of TGD people and their state of health, i.e. the barriers they encounter in the health context, and which involve a further reduction of capital social status and their state of health (Petruzzella, Feinstein, and Lavner, 2019).

Finally, this review demonstrates a striking absence of research about the social capital of TGD and in general for SGM.

5 Conclusions

This paper confirms that there is a marked absence of academic research about the social capital of TGD people. This paper confirms that there is a marked absence of academic research about the social capital of TGD people.

This paper presents strengths and limitations. Strengths of this review include using the concept of social capital in TGD people, and consideration for the multitude of factors that converge and interact with the influence this concept in their health status. In its design, this article followed the guidelines outlined by Tricco, Langlois, and Straus (2017).

As a result, this review is transparent, synthesises current knowledge about interest, and can be used to inform future sociological and not only interventions. The paucity of scholarly evidence available for review limits our ability to make conclusive statements about social capital of TGD people. Small sample sizes in the included studies warrant caution when deriving generalised conclusions about social capital. I invite readers to consider that the themes presented here have been drawn from much larger, more complex research on the subject.

Thus, the social capital of TGD people is little studied, despite being a protective factor for their health, which already appears particularly fragile and affected by many chronic diseases, drug addictions, psychiatric disorders, etc. It was possible to note how recently new scales and new ways of approaching social capital have been proposed, created specifically for this type of SGM, also in view of the increasing visibility of TGD people in the social, political and above all healthcare space for what concerns their right to health, acceptance and elimination of health barriers.

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